

North Carolina Department of Agriculture and Consumer Services

N.C. Forest Service



Steven W. Troxler Commissioner

October 1, 2014

Honorable Members of the Joint Legislative Commission on Governmental Operations, Senate and House Appropriations Subcommittee on Natural and Economic Resources, Fiscal Research Division:

On behalf of the Department of Agriculture and Consumer Services, I respectfully submit the Annual Report on Wildfires, completed in accordance with the requirements of G.S. 106-911. I am available to answer questions regarding the results of the Department's review. I look forward to working with each of you to achieve the desired results of this report.

Respectfully,

Scott Bissette

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Attachment

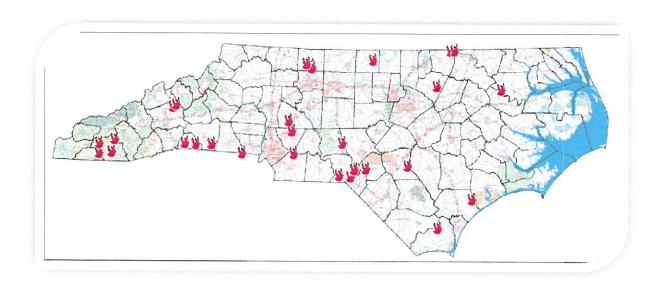
Cc: Steve Troxler, Commissioner, NC Department of Agriculture and Consumer Services
David Smith, Chief Deputy Commissioner, NC Department of Agriculture and Consumer Services
Tina Hlabse, General Counsel, NC Department of Agriculture and Consumer Services
Joy Hicks, Policy Development Analyst, NC Department of Agriculture and Consumer Services



N.C. DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES NORTH CAROLINA FOREST SERVICE



ANNUAL LEGISLATIVE REPORT ON MAJOR WILDFIRES Fiscal Year 2013-2014



October 1, 2014

Agriculture Commissioner Steve Troxler Assistant Commissioner Scott Bissette Pursuant to G.S. 106-911, the North Carolina Department of Agriculture and Consumer Services, North Carolina Forest Service respectfully submits this annual report on wildfire in North Carolina for Fiscal Year 2014.

STATUTORY REQUIREMENT

§ 106-911. Annual report on wildfires

No later than October 1 of each year, beginning October 1, 2012, the Commissioner shall submit a written report on wildfires in the state to the chairs of the House Appropriations Subcommittee on Natural and Economic Resources and the Senate Appropriations Committee on Natural and Economic Resources, the Joint Legislative Commission on Governmental Operations, and the Fiscal Research Division of the General Assembly. The report shall include the following information for all major or project wildfires during the prior fiscal year:

- (1) The date, location, and impacts (property damage and any casualties) from the wildfire.
- (2) The following data for firefighters and related support personnel involved in fighting the wildfire:
 - a. Total overtime hours worked.
 - b. Total compensation paid for overtime.
 - c. The portion of compensation paid that was reimbursed to the state.
- (3) The fiscal impact of the wildfire, including total costs, reimbursable costs, and costs incurred by the state.

OVERVIEW OF FIRE CONTROL

There are more than 18 million acres of woodland in North Carolina. Wildfire is one of the greatest threats to this important and valuable natural resource. The North Carolina Forest Service (NCFS) is responsible for protecting state and privately-owned forestland from wildfires. The NCFS Fire Control program is managed on a cooperative basis with the state's county governments. All one hundred counties participate in the program. Emphasis in the fire control program includes fire prevention efforts, pre-suppression activities (including extensive training of personnel and cooperators), aggressive suppression efforts on all wildfires, and law enforcement follow-up.

NCFS, local fire departments, and communities across the state are working together to prevent, prepare for, and lessen the impact of wildfires. Maintaining a well-trained, proficient wildfire control organization is very similar to maintaining a well trained army. Fire training occurs year-round and new personnel are constantly being trained to preserve capabilities. Veteran fire fighters regularly undergo refresher training in suppression tactics, strategy, organization, and management.

A study conducted by the U.S. Forest Service and the University of Wisconsin-Madison indicated that North Carolina leads the nation in the amount of area classified as wildland-urban interface (WUI). The WUI is the area where structures and other human development meet or intermingle with undeveloped wildland, forest, or vegetative fuels. While North Carolina has the most WUI acres, it also ranks fifth in most housing units within the WUI. The interface creates

great challenges for fire managers, as nearly every fire or its associated smoke may impact homes, roads, farms, or other development.

Table 1 illustrates the need to keep fires as small as possible through early detection and rapid response, which are critical to reducing fire size, protecting property, and minimizing overall loss.

From FY 2013-14, there were 277,067 acres of woodland burned in North Carolina wildfires. Of these, 146,471.8 acres, or 52.9 percent, were burned in fires larger than 100 acres. However, fires over 100 acres only made up 0.55 percent of the total fires for this 10-year period.

Table 1: Historical Wildfire Activity

FY	Fires	Acres	100+ Acre Fires	Acres Burned	Percent of Total Fires	Percent of Acreage Burned on 100+ Ac. Fires
2004-05	3,588.00	13,345.40	15.00	2,218.10	0.42%	16.60%
2005-06	5,778.00	27,943.00	13.00	2,835.00	0.22%	10.10%
2006-07	5,528.00	28,331.30	42.00	13,862.90	0.76%	48.90%
2007-08	6,086.00	59,377.50	63.00	38,113.40	1.04%	64.20%
2008-09	3,723.00	14,966.20	18.00	5,056.00	0.48%	33.80%
2009-10	3,023.00	10,903.60	16.00	3,346.80	0.53%	30.70%
2010-11	5,701.00	85,857.40	36.00	70,165.60	0.63%	81.70%
2011-12	3,259.00	11,958.00	14.00	2,779.00	0.43%	23.20%
2012-13	3,542.00	11,026.30	14.00	3,647.00	0.40%	33.10%
2013-14	4,624.00	13,357.90	14.00	4,448.00	0.30%	33.30%
Total	44,852.00	277,067.00	245.00	146,471.80	0.55%	52.90%
Average	4,485.00	27,707.00	24.50	14,647.18	0.55%	52.90%

SUMMARY OF ALL WILDFIRE DATA FOR FY 2013-14

From July 1, 2013 through June 30, 2014, there were 4,624 state jurisdictional wildfires¹ that burned on 13,357.9 acres. The average fire size was 2.88 acres with the largest fire being 1,533 acres (Shaken Creek Fire).

¹ NCFS has the statutory (G.S. 106-895) requirement of prevention and control of wildfires in any and all parts of this state with the exception of federal government owned property. Through administrative decision, areas within municipal limits are considered beyond the jurisdiction of the N.C. Forest Service.

Effects of weather

Weather plays a very important role in determining wildfire activity and severity in North Carolina. FY 2013-14 was slightly wetter and cooler than average when compared to the same time period going back to 1895. While the year started off with a few relatively dry months (August – October), the remainder of the year was wetter than usual. Weather patterns that included regular, widespread rains for the majority of the state kept fire numbers near average (4,624 fires) and fire acreage well below average (13,357.9 acres burned).

As is typical for North Carolina, March and April had the highest level of fire activity during the 12 month period. March had the highest number of fires for the year (1,026 fires) and the second highest acreage (3,206 acres). March also had the highest number of homes lost due to wildfire (10 homes) during FY 2013-14. April saw the most acreage burned during the year (4,304 acres) on 828 reported fires.

Tables 2 through 6 outline all FY 2013-14 wildfires occurring by region, including estimated damages and causes.

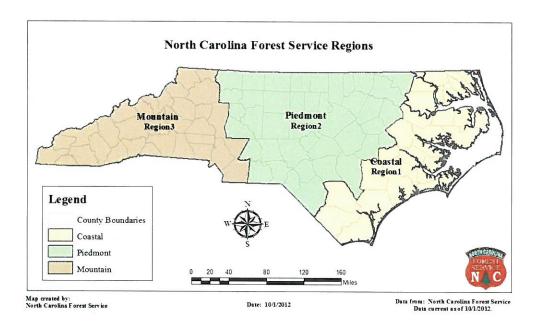


Table 2: Wildfires by Region FY 2013-14

NCFS Region	# of Wildfires	Wildfire Acres
Coastal	583.00	3,393.80
Piedmont	2,231.00	7,426.00
Mountains	1,810.00	2,538.10
Total	4,624.00	13,357.90

Table 3: Property Protected /Damaged by Region FY 2013-14

NCFS Region	Homes and Structures Protected	Est. Value of Homes and Structures Protected	Homes and Structures Damaged or Destroyed	Est. Value of Homes and Structures Damaged or Destroyed	Est. Value of Other Property Damaged (Timber, Livestock, Crops, Vehicles)	
Coastal	1,115.00	\$90,254,000.00	45	\$194,800.00	\$1,927,160.00	
Piedmont	4,283.00	\$329,250,760.00	239	\$2,264,800.00	\$582,210.00	
Mountains	2,817.00	\$310,120,395.00	132	\$759,005.00	\$437,242.00	
Total	8,215.00	\$729,625,155.00	416	\$3,218,605.00	\$2,946,612.00	

Table 4: Wildfire Causes FY 2013-14

Wildfire Cause	# of Wildfires	Wildfire Acres
Camping	29.00	40.70
Children	210.00	193.00
Debris		
Burning	2,312.00	6,119.30
Fireworks	28.00	22.20
Incendiary	665.00	3,675.00
Lightning	34.00	99.30
Machine Use	460.00	1,556.90
Miscellaneous	757.00	1,416.20
Railroad	17.00	45.70
Smoking	109.00	188.70
Unknown	3.00	0.90
Total	4,624.00	13,357.90

Table 5: Top Five Counties Most Heavily Impacted by Wildfire in FY 2013-14

County	NCFS Region	# of Wildfires	Wildfire Acres	Suppression Cost
Richmond	Piedmont	176.00	912.50	\$104,290.00
Moore	Piedmont	169.00	222.60	\$96,520.00
Caldwell	Mountains	145.00	61.40	\$51,195.00
Guilford	Piedmont	133.00	71.70	\$80,610.00
Union	Mountains	124.00	80.00	\$34,080.00
Total for the 5 counties		747.00	1,348.20	\$366,695.00
% of annual total		16.00%	10.00%	10.00%

Table 6: Top Five Counties with Most Acres Burned by Wildfire in FY 2013-14

County	NCFS Region	# of Wildfires	Wildfire Acres	Suppression Cost
Scotland	Piedmont	92.00	1,785.7	\$63,870
Pender	Coastal	38.00	1,697.8	\$134,140
Robeson	Piedmont	115.00	1,559	\$104,770
Richmond	Piedmont	176.00	912.5	\$104,290
Macon	Mountains	60.00	336.7	\$244,460
Total for the 5 counties		481.00	6,291.70	\$651,530.00
% of annual total		10.00%	47.00%	19.00%

MAJOR WILDFIRE DATA FOR FY 2013-14

Thirty-Four (34) major fires had a start date of July 1, 2013 through June 30, 2014.

NCFS classifies a major fire when any of the following occurs:

- A wildfire is 100 acres or more in size.
- Any inhabited or inhabitable dwelling has been destroyed.
- Any structure valued at \$15,000 or greater has been destroyed.
- A firefighter is killed.
- Any significant firefighter injury occurs that requires an emergency room visit or hospitalization.
- An Incident Management Team (Type 1, 2, or 3) is assigned to the incident.
- Other significant events in which a significant commitment of wildland fire resources has occurred.
- Central Office funding is requested.²

Table 7 shows the dates, locations, and impacts of each of the 34 major or project wildfires. It is important to note that while Table 7 shows approximately \$1,676,450 in property damage/loss to homes and structures, on those same wildfires 102 homes and structures with an estimated value of \$6,826,000 were protected.

Of the 34 fires, 15 were considered major fires due to the fire size, 19 were considered major due to the value of structures lost or damaged.

² When the cost of responding to an incident is projected to be more than the field unit can afford, financial support from the NCFS Raleigh Headquarters (Central Office) budget can be requested. Recently, the NCFS Central Office "fire contingency budget" has been limited to \$200,000.

Table 7: FY 2013-14 Major Wildfires - Dates, Locations, and Impacts

County	Fire Name	Start Date	End Date	Area Burned Total	Homes and Structures Damaged or Destroyed	Estimated Value of Homes And Structures Damaged or Destroyed	Estimated Value of Other Property Damaged (Timber, Livestock, Crops, Vehicles)
Bertie	Indian Woods Road	3/2/2014	3/2/2014	104.00	1	\$0.00	\$0.00
Brunswick	Briar Patch Lost	3/14/2014	3/14/2104	130.00	0	\$0.00	\$0.00
Buncombe	Anderson Cove	5/8/2014	5/9/2014	13.00	0	\$0.00	\$0.00
Buncombe	Dodd Road	4/1/2014	4/3/2014	103.00	0	\$0.00	\$0.00
Cabarrus	Irish potato	3/26/2014	3/26/2014	3.00	2	\$20,000.00	\$0.00
Caswell	Log Home	4/12/2014	4/12/2014	2.00	1	\$50,000.00	\$0.00
Cumberland	Obershea Lane	3/11/2014	3/11/2014	8.00	5	\$120,000.00	\$0.00
Franklin	Walnut Grove Church Road	2/28/2014	2/28/2014	2.00	1	\$25,000.00	\$0.00
Gaston	Monta Vista	1/22/2014	1/22/2014	0.20	1	\$35,000.00	\$5,000.00
Hoke	Walter's Farm	5/22/2014	5/22/2014	131.00	0	\$0.00	\$38,850.00
Macon	Allendale Road	4/24/2014	4/27/2014	0.10	2	\$36,450.00	\$0.00
Macon	Bryson Branch	5/2/2014	5/9/2014	163.00	1	\$500,000.00	\$0.00
Macon	Cold Springs	4/2/2014	4/5/2014	136.00	0	\$0.00	\$15,000.00
Macon	Pine View	4/26/2014	4/27/2014	120.00	0	\$0.00	\$5,000.00
Montgomery	Cole Road	4/3/2014	4/3/2014	7.50	0	\$0.00	\$0.00
Pender	Shaken Creek	4/3/2014	4/10/2014	1,533.00	0	\$0.00	\$500,000.00
Polk	Carson Cove	2/27/2014	2/27/2014	0.25	0	\$0.00	\$0.00
Polk	Countryside	2/22/2014	2/22/2014	0.20	1	\$75,000.00	\$0.00
Richmond	Gum Swamp Road	3/14/2014	3/14/2014	222.00	0	\$0.00	\$40,000.00
Richmond	Hickory Mess	1/24/2014	1/24/2014	0.75	3	\$160,000.00	\$0.00
Richmond	Tucker Lane	3/1/2014	3/1/2014	454.00	0	\$0.00	\$0.00
Rowan	Knoll View Saw Dust	1/26/2014	1/26/2014	0.40	1	\$75,000.00	\$0.00
Rutherford	Taurus Way	11/11/2013	11/11/2013	0.10	1	\$50,000.00	\$0.00
Scotland	Blue Boys	12/19/2013	12/19/2013	128.00	0	\$0.00	\$0.00
Scotland	Drop Zone	6/14/2014	6/14/2014	400.00	0	\$0.00	\$0.00
Scotland	Spread Everywhere	10/25/2013	10/25/2013	150.00	0	\$0.00	\$0.00
Scotland	Tiner Lane	3/23/2014	3/23/2014	431.00	0	\$0.00	\$0.00
Scotland	Watson Road	4/11/2014	4/11/2014	150.00	0	\$0.00	\$0.00
Stanly	Strawberry Lane	2/1/2014	2/1/2014	1.00	2	\$301,000.00	\$0.00
Stokes	Baileytown Ridge	2/25/2014	2/25/2014	0.30	1	\$3,000.00	\$0.00
Stokes	Between the Buildings	3/11/2014	3/11/2014	0.20	2	\$36,500.00	\$500.00
Stokes	Cardinal Log	1/28/2014	1/28/2014	0.30	1	\$30,000.00	\$0.00
Warren	Mill Creek Drive	2/24/2014	2/24/2014	1.00	3	\$151,500.00	\$0.00
Warren	Stanley Road	5/9/2014	5/9/2014	0.30	1	\$8,000.00	0.00
	TOTAL		100	4395.6	30	\$1,676,450.00	\$604,350.00

Overtime Data

Employee's record time worked on an incident with individual BEACON charge codes. Due to budgetary reductions, NCFS provides all permanent employees with compensatory time, unless an incident is reimbursable, and pays seasonal employees overtime per the Fair Labor Standards Act (FSLA) and the Office of State Human Resources (OSHR) policy. Table 8 shows the overtime hours worked, hours paid out, reimbursements and compensatory time. All major fires that started July 1, 2013 through June 30, 2014 were non-reimbursable.

Table 8: Overtime/Compensatory Time for Major or project fires FY 2013-14

County	Fire Name	Area Burned Total	Overtime Hours Worked	Overtime Paid	Reimbursements	Compensatory Time
Bertie	Indian Woods Road	104.00	12.50	0.00	0.00	18.75
Brunswick	Briar Patch Lost	130.00	3.00	0.00	0.00	4.50
Buncombe	Dodd Road	103.00	147.10	142.43	0.00	203.60
Buncombe	Anderson Cove	13.00	178.50	66.56	0.00	255.25
Cabarrus	Irish potato	3.00	3.50	0.00	0.00	5.25
Caswell	Log Home	2.00	7.00	0.00	0.00	9.00
Cumberland	Obershea Lane	8.00	12.25	0.00	0.00	18.38
Franklin	Walnut Grove Church Road	2.00	3.00	0.00	0.00	4.50
Gaston	Monta Vista	0.20	0.00	0.00	0.00	0.00
Hoke	Walter's Farm	131.00	19.50	0.00	0.00	24.75
Macon	Cold Springs	136.00	8.00	0.00	0.00	12.00
Macon	Pine View	120.00	148.50	236.64	0.00	206.75
Macon	Allendale Road	0.10	2.00	0.00	0.00	3.00
Macon	Bryson Branch	163.00	116.27	88.74	0.00	162.41
Montgomery	Cole Rd.	7.50	52.00	0.00	0.00	76.00
Pender	Shaken Creek	1,533.00	441.21	236.64	0.00	613.57
Polk	Carson Cove	0.25	5.00	0.00	0.00	7.00
Polk	Countryside	0.20	2.00	0.00	0.00	2.00
Richmond	Tucker Lane	454.00	17.50	0.00	0.00	24.25
Richmond	Gum Swamp Road	222.00	37.00	0.00	0.00	52.50
Richmond	Hickory Mess	0.75	0.00	0.00	0.00	0.00
Rowan	Knoll View Saw Dust	0.40	0.00	0.00	0.00	0.00
Rutherford	Taurus Way	0.10	0.00	0.00	0.00	0.00
Scotland	Tiner Lane	431.00	16.50	0.00	0.00	24.75
Scotland	Watson Road	150.00	7.00	0.00	0.00	8.50
Scotland	Drop Zone	400.00	9.25	0.00	0.00	13.88
Scotland	Spread Everywhere	150.00	0.00	0.00	0.00	0.00
Scotland	Blue Boys	128.00	0.00	0.00	0.00	0.00
Stanly	Strawberry Lane	1.00	0.00	0.00	0.00	0.00
Stokes	Baileytown Ridge	0.30	1.00	0.00	0.00	1.50
Stokes	Cardinal Log	0.30	0.00	0.00	0.00	0.00
Stokes	Between the Buildings	0.20	0.00	0.00	0.00	0.00
Warren	Stanley Road	0.30	3.00	0.00	0.00	4.50
Warren	Mill Creek Drive	1.00	0.00	0.00	0.00	0.00
	TOTAL	4,395.60	1,252.58	771.01	0.00	1,756.59

Fiscal Impacts

NCFS tracks cost information for reimbursable fires. All major fires that started between July 1, 2013 and June 30, 2014 were non-reimbursable/non-billable. Actual fiscal impact data could not be gathered for fires as they were all handled within local county budgets. However, our fire reporting system does track estimated costs. These estimated costs include employee salary (based on an average salary of \$20/hour) and equipment use rates.

Table 9: FY 2013-14 Estimated Fiscal Impacts

County	e 9: FY 2013-14 Estimated Fire Name	Start Date	End Date	Area Burned Total	Suppression Cost	Reimbursement	State Costs
Bertie	Indian Woods Road	3/2/2014	3/2/2014	104.00	\$6,345.00	\$0.00	\$6,345.00
Brunswick	Briar Patch Lost	3/14/2014	3/14/2104	130.00	\$51,550.00	\$0.00	\$51,550.00
Buncombe	Anderson Cove	5/8/2014	5/9/2014	13.00	\$15,210.00	\$0.00	\$15,210.00
Buncombe	Dodd Road	4/1/2014	4/3/2014	103.00	\$19,140.00	\$0.00	\$19,140.00
Cabarrus	Irish potato	3/26/2014	3/26/2014	3.00	\$5,815.00	\$0.00	\$5,815.00
Caswell	Log Home	4/12/2014	4/12/2014	2.00	\$130.00	\$0.00	\$130.00
Cumberland	Obershea Lane	3/11/2014	3/11/2014	8.00	\$74,475.00	\$0.00	\$74,475.00
Franklin	Walnut Grove Church Road	2/28/2014	2/28/2014	2.00	\$1,550.00	\$0.00	\$1,550.00
Gaston	Monta Vista	1/22/2014	1/22/2014	0.20	\$1,875.00	\$0.00	\$1,875.00
Hoke	Walter's Farm	5/22/2014	5/22/2014	131.00	\$5,745.00	\$0.00	\$5,745.00
Macon	Allendale Road	4/24/2014	4/27/2014	0.10	\$750.00	\$0.00	\$750.00
Macon	Bryson Branch	5/2/2014	5/9/2014	163.00	\$7,150.00	\$0.00	\$7,150.00
Macon	Cold Springs	4/2/2014	4/5/2014	136.00	\$9,000.00	\$0.00	\$9,000.00
Macon	Pine View	4/26/2014	4/27/2014	120.00	\$123,120.00	\$0.00	\$123,120.00
Montgomery	Cole Rd.	4/3/2014	4/3/2014	7.50	\$2,115.00	\$0.00	\$2,115.00
Pender	Shaken Creek	4/3/2014	4/10/2014	1,533.00	\$94,320.00	\$0.00	\$94,320.00
Polk	Carson Cove	2/27/2014	2/27/2014	0.25	\$3,650.00	\$0.00	\$3,650.00
Polk	Countryside	2/22/2014	2/22/2014	0.20	\$562.50	\$0.00	\$562.50
Richmond	Gum Swamp Road	3/14/2014	3/14/2014	222.00	\$7,760.00	\$0.00	\$7,760.00
Richmond	Hickory Mess	1/24/2014	1/24/2014	0.75	\$3,750.00	\$0.00	\$3,750.00
Richmond	Tucker Lane	3/1/2014	3/1/2014	454.00	\$930.00	\$0.00	\$930.00
Rowan	Knoll View Saw Dust	1/26/2014	1/26/2014	0.40	\$2,175.00	\$0.00	\$2,175.00
Rutherford	Taurus Way	11/11/2013	11/11/2013	0.10	\$750.00	\$0.00	\$750.00
Scotland	Blue Boys	12/19/2013	12/19/2013	128.00	\$1,080.00	\$0.00	\$1,080.00
Scotland	Drop Zone	6/14/2014	6/14/2014	400.00	\$1,440.00	\$0.00	\$1,440.00
Scotland	Spread Everywhere	10/25/2013	10/25/2013	150.00	\$620.00	\$0.00	\$620.00
Scotland	Tiner Lane	3/23/2014	3/23/2014	431.00	\$1,340.00	\$0.00	\$1,340.00
Scotland	Watson Road	4/11/2014	4/11/2014	150.00	\$1,440.00	\$0.00	\$1,440.00
Stanly	Strawberry Lane	2/1/2014	2/1/2014	1.00	\$3,580.00	\$0.00	\$3,580.00
Stokes	Baileytown Ridge	2/25/2014	2/25/2014	0.30	\$2,650.00	\$0.00	\$2,650.00
Stokes	Between the Buildings	3/11/2014	3/11/2014	0.20	\$2,000.00	\$0.00	\$2,000.00
Stokes	Cardinal Log	1/28/2014	1/28/2014	0.30	\$775.00	\$0.00	\$775.00
Warren	Mill Creek Drive	2/24/2014	2/24/2014	1.00	\$10,650.00	\$0.00	\$10,650.00
Warren	Stanley Road	5/9/2014	5/9/2014	0.30	\$1,925.00	\$0.00	\$ 1,925.00
	TOTAL			4,395.60	\$465,367.50	\$0.00	\$465,367.50

CONTACT INFORMATION

For further information, please contact:

Reid Hildreth N.C. Forest Service - Forest Protection Director reid.hildreth@ncagr.gov 919-857-4838

Joseph Gilroy N.C. Forest Service – Administrative Services Director joseph.gilroy@ncagr.gov 919-857-4853